

GEMSTONE GUIDE



Idaho is truly the “Gem State”. Since the origin of the earth, geologic processes combined to make the rocks of Idaho a mineral collector’s storehouse. This, coupled with the beautiful forests and streams, makes Idaho the place where the rock collector’s dreams come true.

Idaho offers the collector vast areas where precious and semi-precious stones can be found. Many of the collecting areas in Idaho have received international fame because of the beautiful material that can be found with very little effort. Many areas are so remote that they have not yet been exploited to any great extent. Agate, jasper, opal, agatized and opalized wood are found associated with the great lava flows in the southern part of the state. The northern part of the state has aquamarine, diamond, ruby and garnet. In fact, there is hardly an area in Idaho in which the rock collector cannot find rocks or minerals that will make his eyes light up.

County Information

In **Owyhee County** there are areas that yield red, yellow, green and mossy jasper of unexcelled quality. The area is nation-ally known for its pink and white plume agate and for its opal, both common and fire, which occurs in vesicles in the volcanic rocks. Banded, scenic, dendritic and sagenitic agates, as well as polka dot, smoky and moss agates are also found. Succor Creek on the western edge of the county yields red and green agates in a rich two-tone combination and a round shaped nodule, which is called “thunder egg”. These are often found to be geodes with the center filled with fluids. In some the hollow center is lined with quartz crystals.

In **Gem County** fire opal is found in the lava beds of Squaw Butte near Emmett. The opals are salmon pink or cherry red in color and display great brilliance. Most are very small, but some have been large enough to cut into fine stones. Near the opal deposits agates of light blue color abound. Willow Creek has deposits of agatized and opalized wood of high quality as well as massive opal that ranges in color from deep red to salmon pink to white and pale blue.

In **Washington County** agates of many colors abound. The most highly prized agates are those that show an iridescence when cut into thin slabs. Petrified wood from Mann Creek northwest of Weiser is particularly beautiful. The grain of the wood is very prominent and the color is yellow, resembling natural oak. In the Beacon area west of Weiser the famous “Beacon Hill” nodules abound. These nodules are particularly beautiful because of the scenic or dendritic patterns. In some the interior is hollow and crystal lined.

In **Adams County** rubies and pink garnets are found at Rock Flat near New Meadows. Several diamonds have been found in this same area. Sapphires and corundum crystals that sometimes show asterism also have been found in the Rock Flat area.

In **Custer County** clear quartz, amethyst and citrine are found. Large geodes are common. Banded, red and yellow agate is scattered over the area. A forest of petrified wood is near Challis. Near the East Fork of the Salmon River is an excellent collecting locality where a variety of cryptocrystalline quartz is found in blood red sandstone. Near Challis a rare zeolite is found in greater abundance and better specimens than in any other known locality.

In **Latah County** common and fire opals have been found in the vesicular basalts. The internationally famous garnet diggings on Emerald Creek afford the collector an opportunity to find gem and star garnets in remarkably large sizes and quantities. Fossil plant remains can be found in many localities in the siltstone of the interbeds between basalt layers.

Amethyst is found near Hailey in **Blaine County**. Opal and opalized wood can be found in **Lincoln, Gooding and Boundary Counties**. Nationally famous flora beds are near Whitebird in **Idaho County**, and internationally famous “horse” fossil beds near Hagerman in **Gooding County**. Copper, silver, lead and zinc minerals are abundant in Shoshone, Blaine, Custer and Lemhi Counties.

The Idaho Geological Survey has publications for sale that describe the geology and mining history of many mineralized areas in Idaho. The collector will find the publications a help in researching for Idaho minerals. Publication inquiries can be forwarded to:

Idaho Geological Survey
University of Idaho
Morrill Hall, Third Floor
P.O. Box 443014
Moscow, Idaho 83843
Telephone (208) 885-7991

Other publication that might be of interest to the mineral collector is Gem Minerals of Idaho by John A. Beckwith, Idaho Minerals by Lanny R. Ream and The Minerals of Idaho by Earl V. Shannon.

SPECIFIC GEMSTONE AND ROCK INFORMATION

AGATES (Cryptocrystalline Quartz)

Nodules: Lime Creek twelve miles south of Challis along US 93A, Iris along Willow Creek Road off US 93A south of Challis in Custer County. Squaw Creek in Owyhee County.

Plume: Graveyard Point southwest of Homedale (Private Mine) west of US 95 in Owyhee County near Idaho-Oregon border.

Green & Green Moss: Nine miles north of Muldoon, south of Cary along Little Wood River in Blaine County. Parker Mountain near Salmon in Lemhi County.

Banded & Scenic: South of Meyers Cove in Lemhi County.

Light Blue: Near Emmett in Gem County.

Red: Three miles west of Challis in Custer County.

Red & Green: Eastern fringe of Succor Creek in Owyhee County.

AGATIZED WOOD Twelve miles south of Challis along US 93A in Custer County; Hog Creek 8-10 miles northwest of Weiser in Washington County.

AMETHYST Pole Creek in Blaine County. Lost River in Custer County. Paddy Flat & Big Creek area near, Cascade in Valley County. War Eagle Mountain, near Silver City, and “Indian Bathtub” area in Owyhee County.

ANALCITE (isometric zeolite mineral, last zeolite to be deposited)
Golden Bell Mine, in head of gulch which contains the Minnie Moore Mine, near Bellevue in Blaine County. South of Challis in Custer County.

APATITE (Calcium phosphate)
Blackbird Mining District in Custer County.

AQUAMARINE Above Atlanta in Elmore County.

AZURITE (Copper carbonate)
Seven Devils Mining District in Adams County. Alder Creek and Bayhorse Mining Districts in Custer County. Hoodoo Mining District in Latah County. Little North Fork area, near Kellogg area and Mullan in Shoshone County. South Mountain area, Owyhee County.

BERYL

Green: In pegmatites of the Levi Anderson, Muscovite and other mica mines near Avon in Latah County.

Dark Blue: In Primitive Area, near Atlanta in Elmore County.

CALCITE (Calcium Carbonate)

Fluorescent: Alder Creek, Bayhorse and Yankee Fork Mining Districts in Custer County.

Rhombohedral: White Mountain Mine, Seven Devils Mining District in Adams County. Hailey (Mineral Hill) Mining District in Blaine County.

Massive/Granular: Sunshine, Bunker Hill, Hypotheek, Hecla, Standard-Mammoth and Hercules Mine(s), Coeur d’ Alene Mining District in Shoshone County

CASSITERITE (Tin Oxide)

Silver Creek, Lemhi County. Panther Creek near junction of Moyer Creek, Cobalt area in Lemhi County. Along Jordan Creek, near Silver City in Owyhee County.

CEYLONITE (Spinel)

Wild Horse Canyon east side of Hyndman Peak in Blaine County. Rocky Flat area near New Meadows and Seven Devils Mining District in Adams County.

CHABAZITE (form of zeolite)

Blue Jacket Mine, Seven Devils Mining District in Adams County. Warm Springs Creek area, east of Boise, in Boise County. Five miles below Glens Ferry in Elmore County.

CHALCEDONY

Fluorescent: Rabbit Springs in Twin Falls County on Idaho-Nevada border, US 93.

Varieties: Willow Creek Road south of Challis off US 93A, Custer County. War Eagle and Florida Mountain areas near Silver City in Owyhee County. Pole Creek Summit near Galena and South of Carey along Little Wood River in Blaine County. Mahogany Creek in Pahsimeroi Valley and near North Fort of Lost River in Custer County. Potato Hill in Latah County, Parker Mountain Mining District, Lemhi County and Yellow Pine Mining District in Valley County.

CHRYSOCOLLA Alder Creek in Benewah County, Arkansas Mine et al in the Seven Devils Mining District in Adams County. Hoodoo Mining District in Latah County, Coeur d' Alene Mining District in Shoshone County.

CINNABAR Alder Creek Mining District in Custer County. Yellow Pine Mining District in Valley County. Near Weiser in Washington County.

CRYSTALS

Quartz Crystals: Near Bayhorse and in the Yankee Fork Mining District, Custer County. Crystal Peak northeast of Fernwood in Benewah County. McKinley Gulch in Slate Creek, and Ruby Meadows, Idaho County. Long Gulch south of Silver City, Owyhee County. Northwest of Donnelly in Valley County.

Cobalt (Crystals) Blackbird Mining District, Lemhi County. Silver City area, Owyhee County.

CORUNDUM Near Silver City in Owyhee County. Along Rhodes and Orofino Creeks near Pierce in Clearwater County. Along Gold Fork Creek northeast of Donnelly in Valley County. Rock Flat gold placers near New Meadows, Adams County. Near (Resort) Burgdorf in Idaho County.

DIAMONDS Little Goose Creek area near New Meadows, Adams County.

DOGTOOTH SPAR (Calcite Crystals) Adjacent to US 95 midway between Riggins and Lucile, Idaho County.

EPIDOTE Peacock, Queen, Copper Boy and other mines, Seven Devils Mining District in Adams County. Pierce area of Clearwater County. Mackinaw and Carmen Creek Mining districts in Lemhi County. Near Park Creek in Custer County. North of Paddy Flat Road northeast of Donnelly, and Deep Creek north of McCall, Valley County. Near Silver City, Owyhee County.

FELDSPAR

Moonstone: Near Fairfield, Camas County.

Pale Yellow: Shafer Creek, Boise County.

Clear: Crystal Butte 18 miles north of St. Anthony in Fremont County.

Varieties: Blackbird Mining District, Lemhi County. Silver City area, Owyhee County.

FLUORITE (Purple) Empire Mine, Alder Creek Mining District, Custer County, South of Meyers Cove, Lemhi County. Stibnite in Valley County.

GARNET

Star Garnet: Purdue Creek, vicinity of Bovill and Clarkia, and along the East Fork of Emerald Creek in Benewah County (Forest Service fee).

Lime Silicate Garnet: Seven Devils Mining District in Adams County. Lanes Creek (NW¹/₄, Section 9, Township 8 S., Range 43 E., B. M.) in Bear Lake County. Phi Kappa Canyon, near the head of Big Lost River; Copper Basin at the head of the East Fork of Big Lost River; Alder Creek Mining District near Mackay in Custer County.

Rose-Red and Brown-Red: Rhodes Creek, Orofino area near Clearwater River, Pierce area, in Clearwater County. Clearwater River near Lewiston in Nez Perce County

Red: Canyon Creek and Purdue Creek, Shoshone County.

Purple-Red: Silver City area, Owyhee County.

Yellow-Green: Iron Mountain northeast of Weiser in Washington County.

Red-Pink: On Main Salmon River 10 miles above Riggins in Idaho County. White Monument, Peacock and Copper Key mines near Kinney Point, Adams County.

HEDENBERGITE & ILVAITE South Mountain Mining District in Owyhee County.

HEMATITE (Pebbles) Lane's Creek gravel bars in, Bannock County. Boise Basin placers in Boise County.

HEMATITE In dumps of copper mines, Alder Creek Mining District in Custer County. Iron Mountain in Washington County. Iron Mountain 20 miles north of Moscow in Latah County. Rock Flat on Goose Creek in Adams County.

JADE Bitch Creek north of Tetonia, in Fremont County.

JASPER

Red Jasper with Green Malachite: Hummingbird Mine area in Paris Canyon near Montpelier, in Bear Lake County.

Bruneau Jasper: Fifty road miles south of Bruneau in Bruneau River Canyon in Owyhee County.

Varieties: Crane Creek Reservoir area, Twelve miles south of Challis along US 93A in Custer County. West of US 95 south of Homedale near Idaho-Oregon border, Owyhee County. South of Carey along Little Wood River, Blaine County, Signal Light 10 miles northwest of Weiser; Beacon Hill near Weiser in Washington County. Alder Creek Mining District near Mackay in Custer County.

KYANITE Goat Mountain and Blackdome Peak area, Shoshone County.

MALACHITE Seven Devils Mining District in Adams County. Hummingbird Mine in Paris Canyon in Bear Lake County. Alder Creek Mining District in Custer County. Skull Canyon area two miles east of Kaufman in Fremont County. Hoodoo District, Latah County. Coeur d'Alene and adjacent Mining districts, Shoshone County, Idaho.

MARCASITE In association with silver mines near Silver City in Owyhee County. One mile south of Salmon in Lemhi County. In the Gold Hunter Mine, Coeur d'Alene Mining District in Shoshone County.

MORDENITE Near Salmon in Lemhi County. Fifteen miles south of Challis in Custer County.

MYRMEKITE Yellow Pine Mining District in Valley County.

NAUMANNITE DeLamar Mine on Florida Mountain near Silver City in Owyhee County. Yankee Fork District, Custer County. Parker Mountain Mines, Gravel Range Mining District in Lemhi County.

OPAL

Fire: Lava beds of Squaw Butte, Emmett area, and Black Canyon Dam in Gem County. Near Givens Hot Springs, Oreana, and on the west side of Squaw Creek in Owyhee County 5 miles south of Forney on Opal Creek in Latah County. Spencer Opal Mine in Clark County near Spencer. (private - fee charged).

Banded: Three miles west of Challis in Custer County. Squaw Creek in Owyhee County.

Hyalite: Near Lewiston area in Nez Perce County.

Colored: Red to salmon-pink to whites and pale blues, along Willow Creek near Emmett in Gem County.

Varieties: Pahsimeroi Valley near May in Lemhi County.

Common: Seventeen miles south of Marsing; Castle Creek; Mule Springs, in Owyhee County. Clearwater River Valley; Givens Hot Springs area; Panther Creek; Poison Creek, in Custer County. Moscow Opal Mines in Latah County.

OPALIZED WOOD Potlatch River Canyon, Kendrick area in Latah County. Clover Creek area in Gooding County. Owyhee County.

PROUSTITE Pilgrim Mine near the head of Beaver Creek in Blaine County. Banner Mining District in Boise County. Hub Mine, Lava Creek Mining District in Butte County. War Eagle Mountain and Florida Mountain area near Silver City in Owyhee County. Big Creek area in Shoshone County.

PETRIFIED WOOD Manns Creek and Sage Creek area near Weiser in Washington County. Crane Creek Reservoir area; Malm Gulch. Willow Creek Road south of Challis off US 93A in Custer County. West of DeLamar off Jordan Valley road; middle reaches of East Fork of Bruneau River; nine miles south of Bruneau east of US 51; Sands Basin, all in Owyhee County. Clover Creek, Lincoln County.

PETRIFIED WOOD, BLACK Coal Mine Basin on US 85 south of Marsing ; Middle reaches of East Fork of Bruneau River nine miles south of Bruneau on US 51; Clover Creek area, in Owyhee County. Sage Creek northwest of Weiser in Washington County.

PYRITE Hailey Gold Belt, Blaine County. Quartzburg area, Boise County. Coeur d'Alene Mine District, Shoshone County. Mackinaw Mining District, Lemhi County.

QUARTZ

Crystals: Pole Creek, a tributary of the Little Wood River in Blaine County. At mines near Silver City in Owyhee County. Near Warren in Idaho County. On O'Donnell Creek near Stocking Meadows in Shoshone County. Green Mountain area in Valley County.

Clusters: Gem, Burke, Murray and Delta areas of Shoshone County.

Smokey: Along Bandy Creek in Lemhi County. Dismal Swamp northwest of Rocky Bar in Elmore County. Paddy Flats, Big Creek near Cascade in Valley County.

Geodes: Upper Valley of Lost River in Custer County. DeLamar Silver Mine area in Owyhee County. Northwest of Weiser in Washington County.

Pseudomorphic: War Eagle and Florida Mountain areas near Silver City in Owyhee County. Lava Creek Mining District in Butte County.

RHODOCHROSITE Blackbird Mining District, and Kitty Burton Mine in the Indian Creek District in Lemhi County. Conjecture Mine south of Lakeview in Kootenai County. (Remarks: Pink.)

RHODONITE South of New Meadows in Adams County.

RUBIES Clearwater Drainage near Pierce in Clearwater County. Placer deposits near New Meadows in Adams County and Valley County. DeLamar-Silver City area in Owyhee County.

SAPPHIRES Rocky Flat area near New Meadows in Adams County. Rhodes & Orofino Creeks near Pierce in Clearwater County. On the east slopes of Brundage Mountain in Valley County.

SILLIMANITE (Fibrolite)

Clearwater River Valley above Lewiston. Big Eddy of Clearwater River above Spaulding in Nez Perce County. Salmon River below Salmon in Lemhi County

STAUROLITE Five miles up Carpenter Creek from its junction with the St. Maries River in Benewah County. In the St. Joe Basin and along the St. Joe - Clearwater Divide in Shoshone County.

STILBITE Minnie Moore Mine near Bellevue in Blaine County. On the north side of Galena Summit in Custer County. Blue Jacket Claim, Seven Devils Mining District, Adams County.

THULITE (Pink colored Zoisite) Seven Devils Mining District in Adams County.

THUNDER EGGS

Amethyst Lined: Beacon Hill, Hog Creek, Weiser area, in Washington County. Four miles south of US 93 on White Cloud Road in Twin Falls County. (?)

Quartz Lined: Rabbit Springs, US 93 Idaho-Nevada border in Twin Falls County. Antelope Creek & Road Creek, Arco area in Butte County.

TOPAZ Dismal Swamp nine and one-half miles northwest of Rocky Bar in Elmore County.

Yellow: Camas Creek in Clark County.

Blue: Along tributary of Paddy Creek in Paddy Flat area on Gold Fork Creek, and Donnelly area in Valley County.

TOURMALINE

South flank of Hyndman Peak in Blaine County. Boise Basin area in Boise County. Pierce area in Clearwater County. Avon area in Latah County. Blackbird Mining District in Lemhi County.

VALENCIANITE (adularia) Yankee Fork District in Custer County. War Eagle and Florida Mountain near Silver City in Owyhee County. Gravel Range and Parker Mountain District in Lemhi County.

WILLOWHITE Longhair Mine north of Eagle, Ada County.

ZEOLITES An interesting group of hydrated aluminous silicates. Occurs as amygdular fillings in vesicles in basalt or amiosite flows; also as geode filling. Thought deposited by hot waters at time of cooling of magmas. Various locations in Owyhee and Custer County.

ZIRCON Streams draining Idaho batholith, principally the American River near Elk City in Idaho County.

ZOISITE (Fossils) Seven Devils Mining District in Adams County.

Cambrian: In limy rock along southeast side of Pend Orielle Lake, Bonner County(?). West rim of Snake River Canyon near Hagerman in Gooding County.

Marine: 9 miles south of Bruneau & to right of US 51, Owyhee County.

Tempskya: 13 miles northwest of Hermans on Willow Creek in Bonneville County.

Trilobite: South Fork of Gold Creek in Valley County.

Graptolites and Invertebrates: Shelves of Lost River Range in Custer County. Trail Creek east of Sun Valley in Blaine County. Bayhorse area north of Clayton in Custer County.

Mollusks: Bayhorse area in Custer County.

Fish: Lost River Range near Mackay in Custer County.

Mastodon & Mammoth: In sediments of Snake River Plain as far north as Palouse Hills in Latah County.

ROCKHOUNDING ON IDAHO STATE ENDOWMENT LANDS

All Idaho State endowment lands are open to casual exploration for gemstones and mineral specimens providing they are not under a valid exploration location or mineral lease. Information concerning status of State endowment lands can be obtained from:

Idaho Department of Lands
Bureau of Minerals
954 West Jefferson Street
Boise, Idaho 83720
(208) 334-0231

ROCKHOUNDING ON PUBLIC LAND

Rock hounds are welcome to collect rocks and gemstones from most public land administered by the US Forest Service or the Bureau of Land Management, but there are some exceptions. Some lands are withdrawn or reserved for certain purposes such as national landmarks, outstanding natural areas, research areas, recreation sites, national historic sites, etc. Rock hounding is usually not permitted in these areas. Rock hounding on valid mining claims is not advised without the locator's consent because of legal problems which might arise between the locator and the collector. Additional information concerning public lands can be obtained from the Bureau of Land Management (BLM), Idaho State Office, 1387 S. Vinnell Way, Boise, Idaho 83709, Telephone (208) 373-3890.

RECREATIONAL GOLD MINING

If you plan on using a gold pan, you can pan just about anywhere as long as you are not trespassing. You can pan for gold in the beds of navigable rivers and streams, which are under the control of the State of Idaho, if no one has filed an exploration location or mineral lease on your area of interest. If you want to prospect in a small river or stream, be sure to check the ownership of the property. If the creek is privately owned you may be able to obtain permission from the landowner, and if it's within public land administered by the US Forest Service or the Bureau of Land Management check with the BLM for any mining claims which may have been filed. A number of navigable rivers have been withdrawn from mineral entry. For additional information concerning these withdrawals check with the Idaho Department of Lands. IDL administers state endowment lands and the beds of navigable streams, and you are free to file exploration locations and apply for mineral leases on any of these state lands not already located, leased or withdrawn. The mineral status plat books in the Department of Lands office will give you current information on what state lands have been located or leased, or visit our website at <http://www2.state.id.us/lands/index.htm>.

Once you have identified your area of interest, review county records in the county assessor's office or maps to determine ownership. If the land is privately owned, contact the owner. If it's federal land, contact the Bureau of Land Management or the US Forest Service. If it is owned by the state, contact the Idaho Department of Lands.

STATE EXPLORATION LOCATIONS

A state exploration location gives you the exclusive right to explore and prospect for gold and other locatable minerals on state endowment lands not already under location or lease. Exploration locations may also be filed on the beds of navigable rivers and streams between the ordinary high water marks. An exploration location covers 20 acres or one-half (½) of a surveyed government lot. Exploration locations are valid for a 2-year period beginning on the first of the month following the date of filing. There is no limit to the number of exploration locations you may file and you will have a preferential right to a mineral lease when the exploration location expires. If you do find commercial quantities of minerals on your exploration location, you must obtain a mineral lease from the state before removing the minerals. Exploration location forms are available at the Department of Lands office in Boise as well as all area offices statewide.

| | | |
|-------|-------------------|-----------------------|
| Fees: | Lands | \$100.00 per location |
| | Navigable Streams | \$250.00 per location |

STATE MINERAL LEASES

A state mineral lease allows you to mine and remove minerals from state endowment land. Leases cover up to 640 acres on lands, or one river mile on navigable streams. To hold a mineral lease you must obtain a bond and pay an annual rental of \$1.00 per acre per year with a minimum of \$160.00 per year. There is also a \$25.00 application fee. Royalties must be paid to the state for any minerals removed. Leases on navigable streams require a prepaid royalty. Application forms are available at the Idaho Department of Lands offices and on the internet.

MAPS

Maps showing land status (federal, state, private) can be purchased from the Idaho State Office of the Bureau of Land Management. These maps also show roads, major trails and other useful features.

FOR MORE INFORMATION

More specific information on the geology of Idaho and the distribution of various minerals is available from geologists in the office of the Idaho Geological Survey in your area:

Idaho Geological Survey
Merrill Hall, Room 332
University of Idaho
Moscow, Idaho 83843

Idaho Geological Survey
Math-Geology Bldg. Room 229
1910 University Drive
Boise, Idaho 83725

DEPARTMENT OF LANDS SUPERVISORY AREAS

Priest Lake Area Office
2550 Highway 2 West
Coolin, Idaho 83821
(208) 263-5104

St. Joe Area Office
80 Hilltop Overpass Road
St. Maries, Idaho 83861
(208) 245-4551

Clearwater Area Office
10230 Highway 12
Orofino, Idaho 83544
(208) 476-4587

Kootenai Valley Area
Route 4, Box 4810
Bonners Ferry, Idaho 83805
(208) 267-5577

Mica Area
3706 Industrial Avenue South
Coeur d'Alene, Idaho 83816
(208) 769-1577

Ponderosa Area
3130 Highway 3
Deary, Idaho 83823
(208) 877-1121

South Central Idaho Area Office
329 Washington Street
Gooding, Idaho 83330
(208) 934-5606

Pend Orielle Lake Area Office
4053 Cavanaugh Bay
Sandpoint, Idaho 83834
(208) 443-2516

Cataldo Area
1806 Main Avenue
Kingston, Idaho 83839
(208) 682-4611

Craigmont Area
P. O. Box 68
Craigmont, Idaho 83523
(208) 924-5571

Maggie Creek Area
913 Third Street, Route 2, Box 190
Kamiah, Idaho 83536
(208) 935-2141

Payette Lakes Area Office
555 Dienhard Lane
McCall, Idaho 83538
(208) 634-7125

Southwestern Idaho Area Office
8355 W. State Street
Boise, Idaho 83703
(208) 334-3488

Eastern Idaho Area Office
3563 Ririe Highway
Idaho Falls, Idaho 83401
(208) 525-7167

GEMSTONES OF IDAHO

In the beginning, when the Earth's crust was convulsing in periods of thermal contracting and expanding, when mountains and valleys were being formed and violent alterations and adjustments were carving canyons and gorges, lakes and valleys, it was then nature was also creating for us a veritable jewel box. It is from these creations produced throughout the scale of time that the rock hobbyists, gemstone and artifact collectors draw from a seemingly bottomless well our wealth of minerals, fossils, artifacts and gems - from the lowly lichen, crinoids and trilobites to the fabulous opal and diamond.

Like the rest of the world Idaho, our Gem State, came into being from the Pre-Cambrian Epoch down through the Pleistocene and the Recent Epoch which occurred only some 20,000 years ago. I will not dwell on geology here for my subject is gems and minerals of Idaho, but without geology or some knowledge of it we would not fare so well.

Idaho offers to the collector of precious and semi-precious stones a bountiful field. The wealth of material in this state is becoming widely known, but so far has been explored only to a limited extent. Nearly every county in the state bears an abundance of material. Agates, jaspers, opals, agatized and opalized woods are found associated with the great lava flows that cover the southern part of the state. The northern part offers most excellent fossil flora in the great thicknesses of the sedimentary beds of the Latah formations. Only a few of the better known and important localities are elaborated upon here.

In Owyhee County, which is one of the largest counties in the state, hobbyists have gathered a bountiful yield of beautiful red, yellow, green and mossy jasper of unexcelled quality. The area is noted for its gorgeous pink and white plume agate and fine gem quality common and fire opal, most of which occurs as amygaloid filling steam holes and cavities. There are also found in this same area agates of all types and colors - banded, scenic dendritic and sagenite, polkadot, smoky and moss types. Succor Creek on the western edge of the county produces the rich two-toned red and green quartz plasma, as well as the familiar elliptical and round shaped nodules known as thunder eggs, and whose cavities are filled with agate or crystal formations. Quantities of agatized and opalized wood are found scattered over the plateaus of this region, the majority of which is of a quality well adapted to the making of polished slabs and cabinet specimen pieces. Fine rock crystal quartz is found associated with the ores on the dumps of many of the mines in the Silver City District in this area, amethystine being among the most desirable.

In Gem County beautiful fire opals are found in the lava flows of Squaw Butte near Emmett. These opals, while rather small, are of salmon pink or cherry color, showing much brilliance and play of light. A few have been found in this deposit large enough to cut into gem stones. Fortification and water agates of light blue color are found close to the opal deposits. Willow Creek in this county has a sizable deposit of agatized and opalized wood in good quality, while further up the creek is massive opal varying in color from deep red through salmon pink to white and pale blue, and which is referred to by hobbyists as Wilkite, so named from Willow Creek on which it is found.

Agates of many colors clear and citrine quartz crystals, and petrified wood are found in abundance in Washington County. Some of the agates, when cut into thin slabs, show rainbow iridescence. The silicified wood found on Manns Creek northeast of Weiser is of particular note. The grain, being very prominent, resembles natural oak to a marked degree and is the color of bright yellow oak. In the Beacon Hill area are found the famous Beacon Hill nodules, which are scenic, dendritic and crystal lined.

At Ruby Flat near New Meadows in Adams County a few rubies and fine pink garnets have been found, and claims have been made that diamonds have also been picked up. Sapphires and corundum crystals ranging from quite dark to very light blue through lavender to colorless are there, a few showing slight asterism.

Custer County, which lies in the heart of our mountainous area in the central part of the state, and part of which is seemed off by the Salmon and Lost Rivers, is a rock hunter's paradise. Transparent quartz crystals line the chalcedony geodes which time and the elements have weathered out of the lava, some being as much as fourteen inches in diameter. Agates of every type are scattered over the area, as well as red, yellow and green jasper in abundance. Petrified fossil leaves and stems, and even a large petrified forest, are found in the tuffaceous formation. Near the East Fork of the Salmon River a beautiful variety of crypto-crystalline quartz having a combination of blood red, sand, white and brown onyx exists, while near the town of Challis is a rich deposit of black limestone containing great numbers of Favosites coral. Also, just south of Challis, occurs one of the rarer zeolites, MORDENITE, which seems to be present in greater abundance and better specimens than in any other known locality.

Only a few of the better known and larger areas of gemstone material sources have been mentioned here, but it might be well to mention a few more localities from which we add to our collections: amethyst from near Hailey in Blaine County; opal and opalized wood from Lincoln and Gooding Counties; fire opal and the much sought after star garnets from near Moscow in Latah County; and the large fossil deposits near Whitebird in Idaho County. The fossil beds of Hagerman Valley in Gooding County are also famous, for in the material from this area scientists have been able to reconstruct a living record of the dead.

A ROCKHOUND'S CODE OF ETHICS

I will respect private property and do no rock hounding without the owner's permission.

I will use no firearms or blasting materials in rock hounding areas.

I will take all garbage home or deposit it in proper receptacles.

I will leave gates as found.

I will cause no willful damage to materials or take more than I can reasonable use.

I will fill excavations which may be dangerous to humans or livestock.

I will discard no burning material, matches, tobacco, etc.